

<b>Title</b>	<b>10 Fastest Growing Occupations (EM-1)</b>		
<b>Subject</b>	<b>Math</b>	<b>Grade Level(s)</b>	<b>3</b>

Indicator: 3-2.4 Apply strategies for fluently adding and subtracting whole numbers. (C3)

Indicator CM3.K2. Recognize that career information includes occupational, educational, employment, and economic information and that there is a range of career information resources available.

1. Students will demonstrate the ability to solve problems involving subtraction.
2. Students will know that the state of South Carolina and the Federal Government collect information about employment growth.
3. Students will know 10 occupations that are fast growing occupations.

1. Students will correctly solve 10 problems involving subtraction.
2. Students will recall that the state of South Carolina and the Federal Government collect information about employment growth (participation in class discussion, and observation).
3. Students will recall the names of 10 fast growing occupations (participation in class discussion, and observation).

- Prior Learning—Instruction in solving problems involving subtraction
- Handouts/Worksheets—*Ten Fastest Growing Occupations* worksheet and teacher answer key
- Resources/Materials—writing materials, *Where the Jobs Are*
- Time Required—45 minutes

## Procedures Part One

- In this activity, students will use subtraction to solve problems about employment information.
- Review with students how to solve problems involving subtraction.
- Give students the *Ten Fastest Growing Occupations* worksheet and review it with them.
- Tell students to solve the 10 problems on the worksheet.

### **Part Two — Career Development Connections**

- Begin the discussion by telling students that the Federal and state governments collect all kinds of information about employment outlook. What jobs are growing and not, what kinds of jobs employ the most people, wage and salary information, and more. (Note: the resource *Where the Jobs Are* [[www.acrnetwork.org](http://www.acrnetwork.org)] explains employment outlook information).
- Engage students in a discussion about the occupations on the list of ten fastest growing. Questions for discussion might include:
  - What do you know about these occupations...are they familiar to you?
  - Do you know anybody working in one of these occupations?
  - What are some occupations you are thinking about?
  - How would knowing about an occupation's future growth help people make decisions about what they will do for work?

### **Crosswalks**

#### **SC Career Guidance Standard/Competency**

Learning to Work Standard 3. Students will explore careers and the connection of school to work.

Competency 3.3. Identify resources for career planning.

#### **Key Employability Skills**

Thinking Skills—Critical thinking

Information Management—Acquires, interprets, and communicates information

\* Adapted from *Career Development Tool Kit, Grades 6-8*, Linda Kobylarz & Associates, 2000. Used with permission.

***The 10 Fastest Growing Occupations, 2004-14\* (Answer Key)***

<b>Occupation</b>	<b>2004</b>	<b>2014</b>	<b>Growth (New Jobs)</b>
Home health aides	624,000	974,000	350,000
Network systems and data communications analysts	231,000	357,000	126,000
Medical assistants	387,000	589,000	202,000
Physician assistants	62,000	93,000	31,000
Computer software engineers applications	460,000	682,000	222,000
Physical therapist assistants	59,000	85,000	26,000
Dental hygienists	158,000	226,000	68,000
Computer software engineers, systems software	340,000	486,000	146,000
Dental assistants	268,000	382,000	114,000
Personal and home care aides	701,000	988,000	287,000

\* Source: U. S. Bureau of Labor Statistics, December 2005

## ***The 10 Fastest Growing Occupations, 2004-14\****

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

***Directions: Solve the problems to find out how many new jobs there will be for each of these fast growing occupations. Show all of your work on the worksheet.***

1. In 2004 there were about 624,000 jobs for **home health aides** in the United States.  
In 2014 there will be about 974,000 jobs for home health aides in the United States.  
How many new jobs will there be for home health aides between 2004 and 2014?
  
2. In 2004 there were about 231,000 jobs for **network systems and data communications analysts** in the United States.  
In 2014 there will be about 357,000 jobs for network systems and data communications analysts in the United States.  
How many new jobs will there be for network systems and data communications analysts between 2004 and 2014?
  
3. In 2004 there were about 387,000 jobs for **medical assistants** in the United States.  
In 2014 there will be about 589,000 jobs for medical assistants in the United States.  
How many new jobs will there be for medical assistants between 2004 and 2014?
  
4. In 2004 there were about 62,000 jobs for **physician assistants** in the United States.  
In 2014 there will be about 93,000 jobs for physician assistants in the United States.  
How many new jobs will there be for physician assistants between 2004 and 2014?

5. In 2004 there were about 460,000 jobs for **computer software engineers, applications** in the United States.  
In 2014 there will be about 682,000 jobs for computer software engineers, applications in the United States.  
How many new jobs will there be for computer software engineers, applications between 2004 and 2014?
6. In 2004 there were about 59,000 jobs for **physical therapist assistants** in the United States.  
In 2014 there will be about 85,000 jobs for physical therapist assistants in the United States.  
How many new jobs will there be for physical therapist assistants between 2004 and 2014?
7. In 2004 there were about 158,000 jobs for **dental hygienists** in the United States.  
In 2014 there will be about 226,000 jobs for dental hygienists in the United States.  
How many new jobs will there be for dental hygienists between 2004 and 2014?
8. In 2004 there were about 340,000 jobs for **computer software engineers, systems software** in the United States.  
In 2014 there will be about 486,000 jobs for computer software engineers, systems software in the United States.  
How many new jobs will there be for computer software engineers, systems software between 2004 and 2014?
9. In 2004 there were about 267,000 jobs for **dental assistants** in the United States.  
In 2014 there will be about 382,000 jobs for dental assistants in the United States.  
How many new jobs will there be for dental assistants between 2004 and 2014?

10. In 2004 there were about 701,000 jobs for **personal and home care aides** in the United States.  
In 2014 there will be about 988,000 jobs for personal and home care aides in the United States.  
How many new jobs will there be for personal and home care aides between 2004 and 2014?

\* Source: U. S. Bureau of Labor Statistics, December 2005